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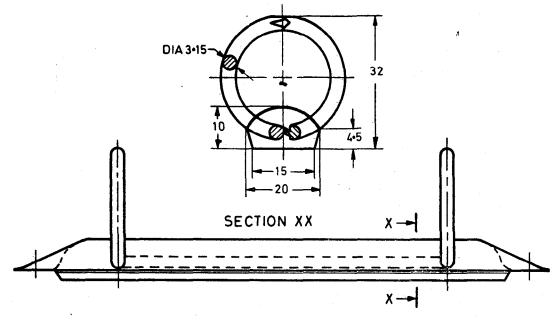


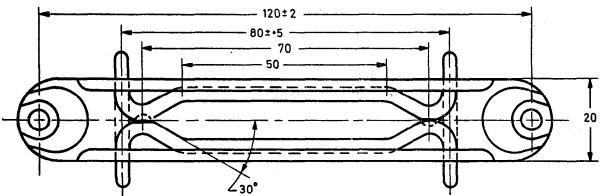


### Indian Standard

# SPECIFICATION FOR FASTENER, FILE, LOOSE-LEAF, RING TYPE

- 1. Scope Specifies material, dimensional and performance requirements for ring type file fasteners for retaining loose paper sheets.
- 2. Shape, Dimensions and Capacity As shown in Fig. 1 and Table 1.





All dimensions in millimetres.

FIG. 1 FASTENER, FILE, LOOSE-LEAF, RING TYPE (TWO RINGS)

#### 3. Materials

- 3.1 Ring Plate Cold-rolled carbon steel sheet having a nominal thickness of 0.710 mm.
- 3.2 Rings Cold-drawn steel wire having a nominal diameter of 3:15 mm.
- 3.3 Rivets Rivets shall be either tubular steel rivets (see IS: 4040-1967 Specification for solid drilled tubular and semi-tubular rivets) or bifurcated rivets conforming to IS: 3974-1967 'Specification for bifurcated rivets for general purposes'.

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#### TABLE 1 DIMENSIONS FOR RING TYPE FILE FASTENERS

(Clause 2)

SI No.	No. of Rings Per Fastener	Distance Centre to Centre		Capacity (Thickness of Paper That can be Filed)
		Between Rings	Between Outside Rings	ý S
		mm	mm	mm
i) .	2	80.0 ± 0.5		25
ii)	3	110:0 ± 0:5	220.0 ± 0.5	25
iii)	· <b>4</b>	80·0 ± 0·5	240 <sup>.</sup> 0 ± 0 <sup>.</sup> 5	40
iv)	6	50·0 ± 0·5	250.0 ± 0.5	50

#### 4. Workmanship and Finish

- 4.1 The fastener shall be designed in such a way that the loose sheets filed would present a flat writing surface for making entries when the binder is open.
- 4.2 The rings shall formed either in D shape or round shape.
- 4.3 The rings shall be properly aligned and shall fit snugly and securely in closed position.
- 4.4 The rings shall open simultaneously when one of them is made to open.
- 4.5 The rings shall close simultaneously when one of them is made to close.
- 4.6 The ring plates (in case of three or more rings) shall be formed so that the rings can be opened and closed by means of trigger or other device as desired by the purchaser.
- 4.7 The fastener may also be provided with a suitable locking device to lock the rings securely in a positively closed position, if desired by the purchaser.
- **4.8** All parts shall be finished smooth and free from burrs, sharp edges and other constructional defects. All parts shall be plated chromium over nickel in accordance with Service Grade 2 of IS: 1068-1968 'Specification for electroplated coatings of nickel and chromium on iron and steel (*first revision*)'. If desired by the purchaser the parts may be zinc plated in accordance with IS: 1573-1970' Specification for electroplated coatings for zinc on iron and steel (*first revision*)'.

#### 5. Tests

- **5.1** Corrosion Resistance Test All components of the ring fastener shall be dipped in a solution of mineral spirit to remove any surface film or grease and wiped dry. They shall then be immersed in 5 percent aqueous solution of sodium chloride for 48 hours. There shall be no visible sign of corrosion.
- 5.2 Performance Test The ring fastener shall be opened and closed in the normal manner of operation for 25 consecutive times.
  - 5.2.1 It shall not be excessively hard to operate.
  - 5.2.2 The rings shall open completely in open position.
  - 5.2.3 The rings fit snugly and completely close in closed position.
- 5.2.4 Rings of those fasteners in which locking device is also provided shall lock positively and securely in closed position. It shall not be possible to open the rings without bending them forcibly or damaging the mechanism.
- 6. Marking Each fastener shall be marked with the manufacturer's name, initials or registered trademark and capacity along with any other marking required by the purchaser.
- 6.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 7. Packing As agreed to between the purchaser and the supplier.